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NUMERICAL ANALYSIS of the PATIENTS treated in GUY'S HOSPITAL
for the last Seven Years, from 1854 to 1861. By JOHN CHARLES
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[Read before the Statistical Society of London, 18th June, 1861.]

THE accompanying series of Tables have been drawn up with the view of illustrating the annual amount of relief afforded to the community through the agency of a large Public Hospital, and are submitted to the Society in the hope that they may prove serviceable for purposes of reference and comparison with similar sources of information. Their scope embraces all the persons that have passed through Guy's Hospital for the last Seven Years, and the analysis of each year has been separately made from the records, of which they present a faithful abstract. In originating the registration, my desire was to combine a convenient register of the patients admitted and discharged, for the ordinary business purposes of the hospital, with some facts of more vital interest relating to the nature of Disease and results of Treatment, and so arranged, as to obtain with facility at the end of each annual period a general *resumé* of results. In order to accomplish this, it was found necessary to furnish each patient on admission with a card, containing his name, age, and date of admission, similar information having been already entered in the Hospital Register; and on the occasion of the patient's discharge, this bed card has been completed by the filling up of three remaining entries — representing the date of discharge, the result of residence, and the nature of the disease or diseases and injuries, as far as it is possible to obtain accurate knowledge. These details are subsequently re-entered on the dismissal side of the register, on a line corresponding with the entries on the admission side; which, in addition to the facts furnished by the card, takes note also of the previous residence, employment, social condition, and other matters tending to identify the patient. In cases of Accident, the cause of accident is entered on a separate column; and where operative interference has been judged requisite, the nature of operation, and other details bearing on the history of the patient are registered in a separate record. After much experience of the vital statistics of hospitals, I cannot help regarding a system of registration organized in this way as perhaps the only one that will admit of uniformity, and although its meagre character may be objected to on medical grounds, it is sufficiently comprehensive for reference and comparison, while it sedulously avoids all matters that admit of colour-

ing or fallacy. To attempt more would require much additional machinery, and is far better left to the many diligent cultivators of clinical details, who abound in every London hospital, and whose labours are weekly analyzed and reflected from the pages of our medical journals. The plan proposed by Miss Nightingale at the last meeting of the International Statistical Congress, was in most respects similar to the arrangement adopted in the accompanying tables, differing only in the manner of registration by substituting sheets for cards, and by a more rigid adherence to the nomenclature founded on the death register of the Registrar-General. The mode of registration is merely a matter of choice, and may be dealt with accordingly; but while fully admitting the desirability of adhering to one uniform system of nosology, I apprehend that in practice much difficulty will be experienced in attempting to systematize individual diseases; while every hospital establishment, especially if allied with a medical school, will be disposed to employ those terms of nomenclature which use and wont have made familiar to its rule.

Guy's Hospital, founded in 1722 for the reception of 400 patients, contained at the commencement of the septennium under consideration accommodation for 520 individuals. Since that time its benefits have been still further increased by the addition of nearly fifty beds, while its internal organization has undergone much alteration and change, mainly with the view of meeting modern requirements with respect to the successful treatment of the sick. To facilitate this, as well as to utilise the practice of the hospital for scholastic purposes, wards have been exclusively allotted for accidents, clinical, ophthalmic, uterine, and venereal affections, while the great bulk of the accommodation, amounting to 376 beds, is subdivided among what are ordinarily termed medical and surgical patients, in proportion to the relative claims for admission and the influence of disease on the sexes. One noticeable result of this classification, is the great similarity which obtains on a comparison of the returns of the practice of one year with another, an analogy rendered more obvious, by the fact that no limits are assigned to admission, save those necessary to meet the ordinary requirements of the hospital. The presence or absence of epidemic disease in the metropolis does not materially influence the induction, as contagious diseases are inadmissible, and the epidemics of childhood are, for the most part, treated at home. The first year of the septennium, however, presents features which renders it an exception to the rule laid down. On referring to the table, it will be seen that the deaths in 1854 exceeded by 25 per cent. the same results in the six subsequent years; a fact that is to be explained by the prevalence of cholera during the period, and the unusual facilities which the patients had, for a time at least, of obtaining admission. In other

respects the diseases and mortality of one year are but a reflex of another, and the combined results indicated in the tables may be accepted as having occurred in pretty equal proportions annually during the entire period under consideration.

The first Table of the series gives a collective return of the Total number of patients who have passed through the hospital from 1854 to 1860 inclusive, indicating also the results attending their residence, while the second takes note of the same numbers subdivided among the respective years, and includes also an enumeration of the class registered as out-patients. In estimating the amount of relief afforded, the division adopted into cured, relieved, unrelieved, and died, will be found, on experience, best adapted for questions of this nature, as it distinguishes a tangible result in every case. It is the plan now usually employed by hospital statisticians, and for the sake of uniformity it is desirable that it should be universally adhered to. It is no less desirable, however, that the exact meaning of the terms employed and the latitude which each embraces, should be fully understood, as fallacious inferences are not inapt to be drawn from a misinterpretation of the terms. The two first divisions, "well" and "relieved," represent two great measures of relief—the maximum and minimum, the relative proportions being 66 per cent. of the former to 25 per cent. of the latter. With reference to the class designated "cured" or "well," it is well known to those accustomed to hospital practice, that the meaning intended to be conveyed is not an absolute and permanent recovery from disease in all cases, but that it includes a very large number of cases where a restoration to temporary health is the utmost that can be expected. In fevers and in the greater number of surgical diseases, especially external injuries and patients subjected to operative interference, no doubt can exist as to the credibility of the return; while in a large mass of cases represented by the return "well," the amount of relief afforded must be accepted within circumscribed limits. The same remark is equally applicable to the division "relieved," which embraces 25 per cent. of the entire cases. Under this latter heading are included a large, perhaps the greater portion of the patients whose classification might, with equal propriety, have been inserted in the category of incurable cases, were it not the fact that they had received benefit from their temporary residence, and were discharged much better in health than they were at the date of their admission. The heading indicated by "unrelieved," is shown to average 8 per cent. of the total numbers discharged, and is interesting in consequence of its affording illustration of a fact that is often called in question, namely, that a considerable portion of cases deemed incurable are annually admitted to the benefits of the hospital. This average would of course be much increased in amount by the addition of the many cases of hopeless

disease that have died in the hospital; and it will be obvious, on reflection that in proportion to the facilities for admission given to patients at large, more than to any sanitary defects in hospital organization, are we to attribute the large mortality which obtains in the more liberally conducted hospitals, when compared with others where it is customary to reject persons suffering from chronic disease. Another circumstance not to be lost sight of in estimating comparative mortality, is the length of residence of the patients. It will be noticed, on referring to the table, that the average stay of each person has varied in respective years from thirty-two to thirty-five days; and on examination of details, it will be discovered that, in proportion to the length of residence, the chances of recovery become smaller. This fact is more marked in cases of chest disease than in any other class of affections, and as the class in question far outstrips in fatal results any of the others mentioned, the influence of the prolonged residence will become still more apparent.

The third and fourth Tables represent the annual changes that have occurred in the two great departments of the hospital, medical and surgical, distinguishing the sexes and noting the relative mortality. It will be observed that the results of treatment are in each department more favourable in the case of females than males, in consequence of the less liability of the former to attacks of acute disease. The great disproportion in the mortality between the two subdivisions is not less significant, for while in the surgical wards it averages less than 6 per cent., in the medical department it is rarely less than 14 per cent. of the numbers treated.

In Table V an attempt has been made to solve the question whether death occurs more frequently at one period of the day than another. An idea prevails extensively that some law of periodicity influences the period of dissolution, and favours the supposition that the death-struggle terminates an hour or two after midnight; but the data recorded do not support this assumption. They rather lead to the inference that the death term is pretty equally distributed over the whole diurnal period, although it is interesting to note the fact that the hours of midnight and noon are less marked with fatal results than the others, the proportion of deaths during these two hours not amounting to more than 115, or the 21·3 part of the entire cases.

Table VI comprises, under fifteen distinct headings, the various forms of disease treated in the hospital during the period named, along with the estimated results in each class. The plan adopted will be considered defective by many, in consequence of its collective character precluding the possibility of comparison with such tables as those of the Registrar-General; but, on the other hand, it is to a great extent free from errors of diagnosis and the fallacies which are

so apt to arise in an individual disease list, from the association and complication of diseases in the same person. On reviewing the different classes in the table, it may be noticed that diseases of the *organs of respiration* occupy, as might be anticipated, the most unfavourable position as respects mortality, the deaths amounting to more than one-fourth part of the total number affected with diseases of this class, and to no less than 27 per cent. of the total deaths from all cases. Consumption, in its numerous varieties and complications, numbers 537 of the 813 deaths, or 18 per cent. of the total mortality. This item in our accounts, after all that has been said about unhealthy site and overcrowding, is in reality the cause of the chief discrepancy in results when we compare the mortality of one hospital with another, for in proportion to the cases of consumption received, to the exclusion of diseases of a less grave character, so must the mortality of all hospitals be influenced. It would be as unfair, for instance, to compare the total results of treatment of such hospitals as Guy's or Bartholomew's with similar annual results of the practice of the London Hospital, where the accommodation is almost exclusively of a surgical character, as it would be to draw a similar comparison with the periodic reports of such establishments as that for consumptive cases at Brompton or the hospital for incurables. In the report of the Statistical Society on Hospital Statistics, it was ascertained that the deaths from consumption alone in the practice of the London hospitals amounted to rather more than 16 per cent. of the total mortality. It has already been noticed that the number of deaths from this cause at Guy's, has averaged 18 per cent.; and it would not be difficult to show that a similar large estimate of mortality has attended the course of other affections usually regarded as incurable. But independent of the mortality register, there is abundant evidence in these tables to show that so-called incurables partake largely of the benefits afforded by a general hospital, and that no form of physical suffering is excluded from the wards. The large class of sufferers, classified as *unrelieved* or worse on their dismissal, bears witness to this assertion, and testifies to the occurrence of a period when hospital treatment exhausts itself, indicating, at the same time, the want of an asylum suitable for their reception. It is frivolous to believe that the small modicum of accommodation supplied by one or two establishments, instituted with the avowed object of meeting this want, can relieve more than an inappreciable number. The natural consequence is, that a majority of these cases find a final refuge in the workhouse, while the remainder continue a burden on their friends or relations, who, in many instances that have come under our notice, have exerted themselves in their behalf at the expense of other, and sometimes more urgent, claims on their resources. The most feasible

attempts that have yet been made towards diminishing the evil, consist in the efforts of a benevolent society, recently instituted, for the object of introducing into the incurable wards of workhouses, many of those home comforts and conveniences that are found in general hospitals, and in other ways of promoting the comforts of the inmates. If in addition to those laudable efforts this society could prevail on the Poor Law Board to double the amount of its present minimum cubic space for each hopeless case of disease, it would confer an incalculable boon on the sufferers, and render the success of its own mission more hopeful and assuring.

Next in mortality to diseases of the respiratory organs, and still more significant of future fatal results, as shown by the larger percentage of cases unrelieved, are diseases of the *heart and blood-vessels, and dropsies*. From the former have been excluded numerous instances of cardiac disease, associated with affections of the respiratory organs, as well as rheumatism; while the latter heading, perhaps more open to objection in a strictly pathological sense than any other in the series, has been arranged solely to meet a want arising from the complicated nature of those affections, and can only be accepted as exhibiting an approximation to the number in which the dropsy formed the most distressing symptom.

Diseases of the *organs of digestion* number 2,222 of the cases analysed, and were followed with 431 deaths. In this number are included the cases of cholera already referred to, and which were attended with 65 deaths, as well as all the cases of hernia, which contributed 71 deaths to the total mortality. If these two diseases are excluded from the list, the fatal consequences will not appear so formidable, the percentage mortality being thus reduced to 16.

The numbers entered in the class of *venereal diseases* show a maximum of numbers and a minimum of mortality when compared with the others. Two wards, male and female, in the upper floor of the hospital have been set apart for their reception, the former accommodating twenty-four and the latter thirty beds, and generally speaking there is little difficulty experienced in keeping both fully occupied. On the female side, cases are continually applying for readmission, so that the table, of necessity, includes a considerable number who have passed through the hospital more than once, but who are there represented as separate individuals. On the male side the reverse is the rule, for readmissions in this department are less frequent than in any other portion of the hospital.

The four sections of the disease table, from the eighth to the eleventh inclusive, represent nearly 10,000 *surgical cases* properly so-called, and include in the category all injuries and diseases arising from external violence, the result of accident or intention. The two classes embracing diseases and injuries of bones and joints are

remarkable for the small fatality attendant on their sojourn in hospital; but it is proper to notice, that in addition to ordinary diseased joints, the ninth section comprises all the cases of rheumatism that have occurred in the hospital during the period mentioned. These usually average from 190 to 200 cases annually, and as the mortality pertaining to them is almost *nil*, certainly not more than 1 per cent., it would be nearer the mark to fix the rate of death among the purely surgical affections at 6 instead of 3·3 per cent. The greatly increased mean residence of persons suffering from diseased joints, is a feature in connection with the class worthy of note; and as is the case with other groups of disease characterized by long stay in hospitals, the amount of benefit conferred becomes reversed in proportion as the columns headed "relieved" and "unrelieved" abundantly testify. In this respect, scrofula, which is the primary source of these affections, bears a similar relation in surgical ward practice to that held by consumption in the medical wards, and is even more chronic in its career, although at the same time it is not usually attended with fatal results.

Under the class, *fevers*, are enumerated besides the ordinary continued fevers, the various exanthems, as well as cases of ague and also the milder forms of febrile disease, the whole combining to reduce the total mortality from these affections to 8 per cent. Excluding the latter from the calculation, the mortality in the severer forms of fever usually known as typhus and typhoid, is increased to $12\frac{1}{2}$ per cent., or about 1 in 8 of those attacked, a death-rate that will be found to mark a fair average of results in all establishments where proper hygienic precautions are used to promote a successful issue. With this view it has been customary to place patients suffering from fever in those positions most likely to be favoured with a constant renewal of the atmosphere, and in as isolated places as possible, consistent with the general requirements of a medical ward. Notwithstanding the proximity of these cases to the general patients, little harm has been found to ensue from the practice, although at the same time precautions are taken to restrict as much as possible the admissions of persons suffering from febrile diseases to the same apartment. In the event of the disease proving epidemic in the locality, such an arrangement could not be carried out with impunity, as it is a fact fully established by observation, that the concentration of the poison appears to develop its inherent contagious influence.

The last or fifteenth section of the disease table, comprises a motley group of affections, the most prominent of which are intemperance, destitution, gangrene, uncertain or unascertained diseases, malingering, and patients admitted without any disease. It is obvious that these will form a considerable proportion of the patients

admitted annually to all hospitals, and that no system of classification can be arranged to place them in a scientific nomenclature. The utmost that can be done is to reduce the section to the smallest possible limits consistent with truth by distributing diseases of uncertain seat—such as rheumatism and scrofula, under some other subdivision allied to them through a prominent system. With this object, the former complaint has been placed under diseased joints, while the latter, with more justice perhaps has been chiefly distributed over the eighth, ninth, and eleventh sections according to the prominent manner in which it manifested itself. Notwithstanding the curtailment, the total cases amount to 876 of the entire number classified in the table.

Table VII, representing the *ages of the patients*, possesses some features worthy of notice. It will be observed that a considerable proportion of cases entered are children, of which 1,135 are under 5 years, and 2,703 are under 10 years. These patients are usually distributed among female adults, and have cots assigned them in the relative proportion of about one cot to every five beds. It is understood that this arrangement answers better than one adopted in former years of having separate wards allotted for the purpose, as by the present plan the little sufferers are, as a rule, better looked after and from their diminished number they can be more readily quieted. They are admitted with all forms of disease, with the exception of those contagious maladies which debar them even from the benefit of institutions set apart for the exclusive reception of children, and which a wise experience has demonstrated are much better treated at home. The mortality at different ages is well illustrated by the table. Under 5 years we have the uniformly large proportion of deaths associated with the most critical period of life; the major portion of the deaths, however, are not those that we find swelling the death-roll of the Registrar-General at this early age, but are chiefly attributable to external injuries from burns, while a smaller proportion are assigned to croup and tracheotomy. The class in the table, including these injuries, presents by far the largest proportion of deaths under 5 years, the numbers quadrupling at the same age those entered under the section of respiratory diseases, usually the most prolific cause of the casualties of childhood. From 5 to 10 years the deaths diminish from 16 to $6\frac{1}{2}$ per cent., and are still mainly attributable to burns and scalds. After this, the mortality diminishes, the quinquennium between 10 and 15, presenting a death-rate of only $4\frac{1}{2}$ per cent.—the smallest in the series. It now increases gradually, and in pretty equal proportion through each quinquennial period till it reaches 80 years, the decennium preceding this term being marked with a death-rate of $18\frac{1}{2}$ per cent. After 80 the debt due to nature is repaid with compound interest,

the mortality being 33 per cent., or twelve out of the total number of thirty-six patients who were admitted to the hospital over 80 years of age. The intervening years, betwixt 15 and 30, will be observed to furnish by far the largest proportion of patients to this, as they do to all hospitals for the sick, not less than 14,000 of the total number being entered under the above ages.

One of the columns of the hospital register distinguishes the *countries* in which patients have been born, and an analysis of this column has been made in Table VIII appended to the series. Foreigners are usually afforded every facility of admission to the endowed hospitals, and the data in the table prove that they are in the habit of fully availing themselves of the privilege.

Another column, exemplified by Table IX, refers to the localities in town or country, from which patients are brought. A partial analysis only of this table has been made, comprising 5,000 of the patients, chiefly under treatment during the year 1859, 3,000 of which were admitted into the surgical division, and 2,000 into the medical wards. Though limited to one year, the numbers are sufficiently comprehensive to indicate, under a general estimate, the proportion of inmates furnished by town and country. The subdivision under three headings represents the patients admitted from the districts situated within and without the parliamentary boundaries of the metropolis, the terms Middlesex and Surrey being used to indicate those districts on each bank of the river within the boundary. It is not unusual to hear stated as a matter of regret that two of the largest metropolitan hospitals should have been placed in such close proximity to each other as Guy's and St. Thomas's; and there can be no doubt, locally speaking, that it would be a great convenience to the sick poor of the densely populated localities south of the river, if they were placed further apart; at the same time it must be borne in mind that no difficulty is experienced in filling the wards of each hospital, nor are they limited to the districts of the boroughs of Southwark and Lambeth, for their supply of inmates. It will be noticed that more than one-fourth part of the number who have received benefit from the Charity, is furnished by the districts lying north of the river, chiefly St. George's in the East and Whitechapel, localities that are generally supposed to be succoured by the London hospital. There is another fact brought to light by the table that ought not to be lost sight of. In calculating the respective numbers, a marked disproportion is observed to exist between the medical and surgical patients received from the Middlesex side, when compared with the analogous admissions from our own localities, a circumstance that can only be explained by the want of accommodation for medical patients in the north-eastern districts of the metropolis. These facts are fully borne

out by the experience of St. Thomas's Hospital, which in other matters closely resembles the data afforded by these tables. Of patients received from the country, by far the larger number arrive from the three neighbouring counties, south of the River Thames, and as a rule preference for a particular hospital is to be judged of, from its convenient position more than to any supposed superiority in its interior administration. Notwithstanding this, a certain proportion of cases are annually received from the provinces, from localities already furnished with asylums for the sick poor, and not a few show a partiality for this, as they do for other hospitals, in consequence of recommendations made by medical gentlemen formerly associated as pupils with the hospital.

Table X presents us with a summary of the more important *surgical operations* performed during the period in question, and gives a fair estimate of the palpable benefit arising from this interesting and important field of observation. There is perhaps no department of hospital statistics that has been more diligently cultivated by individual inquirers than that of operative interference in surgical disease, and there are none so liable to be trammelled with the influence of personal bias in favour of, or in condemnation of, particular operations. This evil, chiefly attributable to the miscellaneous nature of the information from which a deduction is made, is perhaps less felt in the field of hospital experience than in any other, for here it is not difficult to discover and to make due allowance for those unities of time and place which possess such a vital influence on the results of practice. On this account also, the experience of one hospital, when the returns are sufficiently comprehensive, is more to be relied on than that obtained in mass from several similar sources, where in all probability the data have been collected under widely different circumstances. It is absolutely essential in judging of results that antecedent distinctions should be carefully made, and at the outset of all inquiries similar to those we are at present engaged in, there arises no greater fallacy than that which springs from a desire to incorporate large numbers, with the view of arriving at foregone conclusions. In the table of operations are arrayed in the category of simple operations as well as under more complex headings, a large proportion of individuals, whose physical condition is by no means adequately expressed by the classification adopted nor indeed is it possible under any classification to take note of the numerous casualties which complicate operative success in particular hospitals. It is well known to all conversant with our public institutions, that prior to a patient's seeking an asylum there, especially if he is labouring under any unusual form of surgical disease, he has generally had the advice of the regular, and not unfrequently has submitted to the treatment of the spurious practitioner. The conse-

quence of this state of things, by no means improves the ultimate results, and if we deduct, as we are in fact necessitated to do, no inconsiderable proportion of cases whose favourable character for operation has already induced the medical practitioner to interfere on their behalf, our means of judging of average success and fatality become still more doubtful and unsatisfactory. The important question with reference to amputation is one that has frequently been attempted to be solved by the statistical method, but however, useful and instructive a collection of data from authentic sources bearing on the subject may be, it is far from probable that it would influence the surgeon in his attempts to save life or limb. An inherent persuasion acquiring strength from personal experience and observation, and untrammelled with dogmas, unless of an individual kind, is doubtless the incitement to action in the majority of instances in question. The natural tendency of the mind to become conservative is also nowhere better shown than in the field of operative surgery, and without venturing on an assumption that would appear arrogant we cannot withhold an impression that in proportion to the experience obtained, the repugnance to amputation renders itself more manifest, and thus the results of operation are in consequence more fatal, and to appearance unsatisfactory. It is from the class of patients registered as secondary amputations from injury, that we have to ascribe an unusually high rate of mortality in hospital practice, and at the same time we are bound to draw an inference from this source, that the laudable attempts to save limbs have not been unattended with success, notwithstanding the fact that their existence is ignored in the operation list and consequently they cannot appear to the credit of the surgeon. These remarks are not made in any apologetic tone, but are simply intended as facts to guide us in forming an estimate of the results contained in the tables, and without which it is impossible to arrive at any correct conclusions. In the list of operations submitted, there are no fewer than 383 cases wherein amputation has been performed. These numbers include, however, many minor operations, and to facilitate reference the following reduced classification of what are usually called capital operations, will be found better suited than that employed in the larger table.

The proportion of males to females who underwent amputation is in the ratio of 4 to 1, and the deaths will be noticed in the extended list to be somewhat greater in the former than in the latter; the numbers, however, are not sufficiently comprehensive to draw conclusions from. The next section in the table refers to the excision of tumours, of which operation there are no fewer than 446 instances registered, by much the largest subdivision in the operation list. The pathological characters of the tumours, as far as they could be determined, as well as the sexes of the patients, are entered on the

table. It is noticeable that the female sex suffers in a much greater degree than the male from this class of disease, the proportion being rather more than two of the former to one of the latter, and that

Amputation of	Total.	Primary.			Secondary.			For Diseases.		
		Cured.	Died.	Mortality pr. Cent.	Cured.	Died.	Mortality pr. Cent.	Cured.	Died.	Mortality pr. Cent.
Thigh	106	6	11	64·7	2	8	80	66	13	16·4
Leg and foot	58	8	9	52·9	3	6	66·6	25	7	21·8
Shoulder and arm	28	10	9	47·3	4	2	33·3	3	—	—
Forearm and hand	32	14	1	6·6	3	—	—	13	1	7·1
	224	38	30	44·1	12	16	57·1	107	21	16·4

tumours of the female breast average nearly 33 per cent. of the total cases. Of mammary tumours by far the largest number are classified as cases of cancerous disease, the proportion being about $2\frac{1}{4}$ to 1 of a miscellaneous character; but it is proper to notice that many of the cases entered on the list have been the repeated subjects of operation, although only registered afresh after being discharged and readmitted to the wards. The next section in the table comprises excisions of diseased bones, a most fertile source of surgical interference in all hospitals. Under this head have been analysed 265 cases, of which 57 are referable to the bones of the upper, and 161 to those of the lower extremity. The numbers indicate a class of operations in which perhaps the minimum amount of amelioration is obtained in proportion to the length of residence of the patients, those marked unrelieved, being for the most part subjected to subsequent amputation of the diseased limb, and they consequently reappear in the previous part of the table. Males outnumbered females in the proportions of 201 to 64, and the mortality as usual was also greater in the former than in the latter.

The section indicated by the heading of *reparatory operations* represents a most interesting class of cases where attempts have been made to remedy natural and accidental deformities, through the plastic influence of the tissues in the immediate neighbourhood of the parts involved. The results obtained are highly suggestive of the benefits to be hoped for, in what are often assumed as a most hopeless class of cases, and although the numbers unrelieved, are higher in this than in any other department of operative aid, the inference is not less favourable to judicious attempts at reparation.

The important operation of *lithotomy* is entered as having been performed 93 times during the period and as having been accompanied with 16 fatal results. A glance at the ages of the patients

operated on, for stone is appended to the table, and shows how the operation may be classed as one of the most hopeful as well as one of the most formidable and fatal in the whole category. Under the age of 18 years the mortality rises no higher than 8 per cent., while from 18 to 50 years it averages as much as 24 per cent., and after the term of life last noted five out of six cases proved fatal. The returns of lithotrity are even less favourable in the aggregate than the other, but it is of importance to notice that the ages of the subjects of this operation were mostly of an advanced character, and that the greater number were operated on several times, a circumstance that is sometimes lost sight of in the preparation of similar returns, where each separate crushing is instanced as an individual operation.

It was noticed at the outset of these observations to be the misfortune of sick hospitals to receive into their wards a very numerous class of patients after the ordinary surgical appliances have failed to ameliorate their condition. In no section of the long list of operations does this fact obtain with more force than those comprised under the term herniotomy. The records of hospitals in relation to this particular operation are certainly very unfavourable, and there are few Hospital Surgeons who have not had reason to condemn and to deplore the practice of receiving patients suffering from the disease in question, days, and sometimes weeks, after all manual attempts at reduction have proved hopeless, necessitating the alternative of an operation, which under the circumstances is little better than death itself. Of the entire number registered, it will be noticed that 51 persons underwent the operation for inguinal hernia; the form of disease usually affecting the male sex, of whom 26 recovered and 25 died. The results of operations in femoral hernia, to which females are more peculiarly liable, has been considerably more successful, 68 having been cured while 39 died.

Of operations on the eye, the last subdivision of the list, little need be said. These refer specially to the more important class for improving and giving sight, and have been performed under the most favourable circumstances, as the success attending them abundantly testifies. The two casualties which are entered as having occurred after the operation of extraction, are due one to cholera, and the other to chest disease occurring in an old man who died in another department of the hospital. Similar extraneous results have determined the fatality of a certain proportion of the cases entered in the operation list, and which appear of a trivial character to be attended with fatal consequences. The operations having proved successful it would have been perfectly justifiable to have entered them on the first column of the table, but as supervening complications will always, even under the most favourable circumstances, be associated in some degree with general results, it has been deemed

advisable to transcribe the issue of each case from the termination of the patient's residence in hospital.

Table XI of the series presents under twenty-two separate sections the several cases of accident that have been admitted to the hospital during the period in question. The division adopted gives an excellent illustration of the causes leading to injury of the person to which a great city population is continually liable, as well as the danger to life involved by each separate class. The relative numbers from individual causes of accident are very similar in a comparison of one year with another, and it is presumed that a similar, if not a larger, proportion of cases presenting like features of cause and effect are annually taken into St. Thomas's Hospital which is even more conveniently situated than Guy's for the reception of the casualties which will always complicate the traffic at London Bridge. The first section, relating to accidents occurring on the river gives perhaps a less favourable estimate of comparative frequency of cause than any other in the series, inasmuch as the bulk of these accidents occur in the neighbourhood of the Docks, and as a rule are received into the London hospital. Cases of accidental poisoning and attempts at suicide number 124 of the total accidents, not a few of the latter were attempted by poisons but it is a noteworthy fact that during the last two years this means of suicide has materially diminished in frequency, not more than five cases having been received during the period named. It will be observed that attempts at suicide are not as a rule very successful; in females less so than in males the proportion of deaths being in the former about 1 in 8 cases, and in the latter in about 1 in 4. In truth, it is very questionable whether all these cases can be classified under the heading adopted in the table, as it is generally understood by those accustomed to hospital experience in these matters that a large proportion of so-called suicides do not really meditate self-destruction, and that the vicious impulse involved in the simulated attempt is nothing more than a morbid desire to procure sympathy, or to produce remorse, and, in fact, is only in a less degree the offspring of that moral cowardice which is the mainspring of action in the perpetrators of the more heinous crime.

Burns and scalds occupy a large place in the category of accidents. The total number of injuries from these causes amount to 425, of which not less than 213 are observed to have arisen from the clothes of the patients taking fire. This cause is also noticeable as being by far the most deadly of the several ways in which a person may be burned, the deaths outnumbering by 25 the numbers of patients who recovered. As might have been expected, the number of females injured in this manner is very much larger than males, the numbers being respectively 142 and 71, or exactly double. In only one other

instance, in which the causes are of sufficient frequency to draw deductions, do females appear more susceptible of injury than males, namely, in the section designated as "falls down stairs," but in this division the numbers partake much more of an equality than the other. A glance at the totals of the accidents shows the comparative liabilities of the sexes to causes of injury, as being in the proportion of 5 males to 1 female admitted. Collisions between opposing forces, with street vehicles and simple falls on the ground, accidents incidental to a crowded throughfare, comprise 1,077, or more than one-fourth part of the total number in the table. The relative mortality is observed to be small, not averaging more than 7 per cent.

A larger source of supply arises from falls from heights, such as from scaffoldings erected for building and other purposes, and falls of heavy weights on patients, such as loads of bricks, stones, earth and rubbish. The two causes combining to produce injuries of a similar character, comprise 35 per cent. of the total accidents, and the mortality attendant thereon may be estimated at $8\frac{1}{2}$ per cent. It may be noticed as a distinctive feature of the accidents generally, that they do not contribute as a rule to augment the average mortality. The reverse effect has frequently been ascribed to them, but the data furnished by these returns do not justify the inference, for with exception of two or three of the causes enumerated, the great bulk of the sections exhibit a comparatively low range of deaths when compared with other departments of hospital practice. Of the remaining causes of injury the only two claiming special reference are those arising from machinery and accidents occurring on the railway. These do not present very alarming totals for the period, when compared with other causes in continual operation. Accidents from machinery have been almost entirely confined to males, there being only two females entered under this head, while the mortality from the same cause has been comparatively small, being little over 6 per cent. Next to burns produced from clothes catching fire the railway *injuries* furnish us with the most fatal class, one out of every three persons injured *from this cause* dying, and females will be observed to have suffered in a much less degree than males, the proportionate numbers being 1 female to 16 males injured from the cause in question. No enumeration of the causes of accidents can be considered complete without allusion being made to the most prolific and at the same time the most preventible source of all accidents, namely drunkenness. We have no satisfactory statistics to guide us in estimating the proportion who have suffered from this vice, but from personal observation and experience alone we can safely confirm what has been frequently stated by others, that of all the causes in operation leading to temporary or fatal injury to the person, there

are none to be dreaded so much as those arising from the vice in question.

In fact, the public-house is no less the greater tributary to the sick hospital than to the union workhouse, and there are few moral lessons which possess greater opportunities of practical application than those illustrated by the everyday experience of an hospital ward.

Out-Patient Department.

An important feature in connection with every London hospital is its out-patient department. It is here that its benefits if not usefully bestowed are at all events numerically lavished, and although the operation of the department may be attended with many serious objections, of a character best known to those to whose care it is entrusted, it does not admit of a doubt that a large amount of relief is annually furnished to the population by the efforts made to treat disease after this somewhat summary fashion. As the Dispensary system of house-to-house visitation is denied in all London hospitals the out-patient department is based on the assumption, that applicants for relief are capable of attending at the hospital at given intervals of time, irrespective of their maladies or of the symptomatic changes accompanying them. The necessary result of this state of things is, that a numerous class of persons suffering from all species of disease especially incidental to life in a crowded city, and not of sufficient severity to detain them at home, daily flock to those establishments especially where free charity is administered, and where no limit is assigned to their number, unless perhaps it may be regulated by the exhausted energies of the Medical Officer. From the miscellaneous crowd are selected no inconsiderable portion of persons whose complaints being of a graver character than the others are drafted into the hospital as fit objects for in-door relief, while a fair proportion of the remainder are largely benefited by their occasional attendance. Notwithstanding this admission, we believe that the privileges obtained in this way are greatly abused, not only by the poor themselves but also by many whose position in life scarcely warrants their accepting charitable aid.

The *hospital-going people* of the metropolis, as a class, are remarkable for many features in common which distinguish them from the industrious and deserving poor. They are not as a rule composed of "those whose lot it is to labour," but are rather recruited from the grades who follow sedentary occupations, or of those who have no avocation at all, and while females form the great bulk of the applicants, their numbers comprise no inconsiderable proportion of the weak members of the other sex as well. Their appeals are not restricted to any particular hospital or to medical

authorities attached to it, as they migrate at intervals from one hospital to another, to test their comparative benefits, and it may be frequently noticed that their confidence in an establishment increases in proportion to the difficulties to be overcome in obtaining access to its charity. It is scarcely to be wondered at, that under such a system, a morbid confidence is engendered in the miraculous agency of physic, and that the unfortunate votary should become developed into the regular medicine voluptuary whose critical and acquisitive tastes would have found no soil for cultivation if attention in the first instance had been paid to the few natural laws which govern the functions of the organism. It has been suggested as a means of remedying the abuse complained of, that a small fee should be exacted from each recipient, and if it were possible to separate the industrious and deserving from the habitual medicine taker, there can be no doubt of the efficacy and benefit to the community at large which such a practice would induce.

But to return to the Tables. In the enumeration of patients relieved at the out-patient department it has been found impossible to furnish any detailed data of importance, for, with the exception of the midwifery division, we have no records to supply us with more than a simple numerical registration. The first table is comparatively of more importance than the others, as it refers to the patients examined and prescribed for at weekly intervals by the regular medical staff, and as they happen to be selected from the general crowd of applicants as eligible for special relief, it is assumed that their diseases are of a graver character than those alluded to in the sequel. The division adopted into surgical, medical, eye, and female diseases corresponds with that followed in the administration of the business of the out-patient department, which is under the superintendence of eight medical officers, who attend at stated intervals. Each special applicant is furnished with a card which entitles its holder to eight separate attendances, and if at the end of eight weeks it is desirable to continue the attendance, the card is renewed with this object.

The next class on the roll represents a total of 160,524 persons, whose diseases, generally speaking, are not sufficiently severe to require their continuous attendance, their visits to the hospitals being restricted to one or two occasions. The number is by far the largest on the list as well as the least satisfactory, inasmuch as the majority have not come under the cognizance of the regular staff, but have been examined and prescribed for by advanced pupils, selected for the purpose by the officers in charge. The enumeration has also been chiefly made from prescriptions retained in the dispensary, a source of doubtful accuracy, as it is possible that in some instances the patients have been prescribed for at separate intervals; nevertheless if

allowance be made for a proportion who receive advice without medicines, the discrepancies in the general total will not appear so great.

The list of minor accidents and operation cases treated in the surgery of the hospital numbers 13,387, nearly 2,000 persons annually, or two-thirds more than those treated inside the hospital. The list comprises such injuries as fractures of arm, dislocations, and in fact all such injuries which do not require the persons affected to remain in bed. As casualties of this kind are occurring at every hour of the day and night, the main work of the department falls to the care of the resident dressers, who are thus afforded a fruitful field of experience, independent of the general practice of the wards. The only remaining table, exclusively connected with the out-patients, refers to the lying-in charity associated with the hospital, and the statistics of which are more ample and detailed than the others. It appears from the analysis made, that nearly 12,000 mothers have been attended during confinement with results of a very satisfactory and encouraging kind. These persons are attended at their own homes by the pupils of the hospital, under the immediate superintendence of the physicians accoucheur, and two of the senior students are in constant residence at the hospital to keep the records and to attend to cases of urgency as well as to assist the junior pupils in cases of doubt or difficulty. The charity is of course entirely confined to the Surrey side of the river, and for many years it embraced within a radius of two miles from the hospital a considerable portion of the most densely populated districts of Southwark and Lambeth; but from the annually increasing applications for relief, and the demand made on the time of the students, it has been found necessary to curtail the area of its operations to the extent of one-half, or a mile's radius from the hospital. This circumstance will account for the diminution in the numbers attended during the last few years, or since 1856, at which period it appears to have reached its maximum.

Appended to the series of tables there is a record of the total numbers who have annually passed through the hospital from the *date of its foundation to the present time*, compiled from the admission, discharge, and death registers. An examination of this return proves that *the rate of mortality* has materially diminished since the commencement of the period, or at all events since the decennium 1740 to 1750, at which time it reached its maximum, namely 14·7 per cent., and although it may have fluctuated slightly during decennial intervals since the period mentioned, as a general rule it has continued gradually to decrease, the last decennium exhibiting the lowest average, namely 9·1, which would have been still further reduced if the exceptional year, 1854, had been excluded from the

analysis. An examination of the last century records explains in some measure the causes contributing to the excessive mortality during that epoch. The deaths registered are not dissimilar in character to those which of late years have constituted the highest class, but in addition to the ordinary large proportion of consumptions and dropsies we meet with an unusual number of cases of fever, small-pox, and syphilis, diseases now either of rarer prevalence or of less severity, or, as in the case of small-pox, inadmissible by reason of its virulently contagious character, which circumstance has necessitated the segregation of the patients in a suburban hospital set apart for the special purpose. We are also justified in inferring, from the great preponderance of hopeless cases of disease freely admitted during the greater part of last century, that the governing body was anxious to comply with a desire somewhat ambiguously expressed in the testamentary dispositions of the Founder, to the effect, that they should provide accommodation for a large number of persons whose diseases were deemed incurable; a practice which a more enlightened policy has long since thought fit to abandon.

But while mainly attributing the favourable indications to the causes above specified, it would be manifestly unjust to under-estimate the value of the greatly improved methods of medical treatment which modern science has originated for the cure of the sick, as well as the greater attention now being paid to hospital hygiene. For many years past this branch of science has been developed in a variety of ways in nearly all establishments of a similar kind. Its advance is best promoted by the improvement of the dietary of the inmates, by enlarging the individual allowance of space allotted for beds, by obtaining, at all hazards, open grounds for airing purposes, and of altering and modifying internal structural arrangements when they are found to be opposed to sanitary requirements. These measures are not effected without great difficulty and expense; in all hospitals they have vastly increased the average cost of the patients, and in many they have been attended with a considerable diminution of numbers, while they have brought others to the verge of bankruptcy. Still it cannot be doubted that in a matter of such vital importance the gain is well worthy of the sacrifice, and it is fortunate for a community that the successful management of its sick poor should have been left in a great measure to its own unaided benevolence, influenced and directed by the liberal and progressive tendencies which have characterized the present age.

TABLE I.—*Statistical Record of Guy's Hospital for Seven Years, from 1854 to 1860 inclusive.*

Patients in hospital, 1st January, 1854	453
Admitted during the period	32,360
		<hr/>
Total	32,813
		<hr/>
Discharged as cured, well, or convalescent	18,591	
Relieved or improved	8,038	
Unrelieved or worse	2,713	
Died	2,978	
Remaining in hospital, 1st January, 1861	493	
		<hr/>
		32,813
		<hr/>

TABLE II —*Showing the Comparative Numbers during the Period.*

	1854.	1855.	1856.	1857.	1858.	1859.	1860.
IN-PATIENTS.							
Remaining at end of each preceding year.....	453	454	458	452	497	481	479
Subsequently admitted	4,636	4,306	4,615	4,774	4,712	4,668	4,649
Total annually under treatment	5,089	4,760	5,073	5,226	5,209	5,149	5,128
Cured, or discharged as well, or convalescent	2,619	2,499	2,626	2,686	2,711	2,823	2,627
Relieved or improved	1,190	1,067	1,201	1,232	1,174	1,000	1,174
Unrelieved	300	332	390	433	413	431	414
Died.....	526	404	404	378	430	416	420
Remaining at end of each year	454	458	452	497	481	479	493
Average number daily resident	458	452	466	456	477	462	489
Mean residence of each person in days	33·2	34	33·3	31·8	33·8	32·7	34·8
Number of accidents registered.....	548	529	610	458	568	624	583
Number of surgical operations registered	330	340	349	349	352	299	394
OUT-PATIENTS.							
Number of surgical patients	2,750	2,753	4,303	3,837	3,700	3,265	2,875
„ medical cases	2,845	3,025	3,057	3,141	3,549	3,855	3,943
„ uterine cases	1,298	1,376	1,454	1,438	2,126	1,836	1,822
Patients with eye diseases	1,457	1,450	1,511	1,473	1,762	1,570	1,480
Casual cases.....	17,638	21,285	21,036	25,886	22,057	24,764	27,858
Minor accidents	2,334	2,268	2,262	1,549	1,570	1,735	1,669
Lying-in charity patients	1,738	1,753	2,011	1,731	1,651	1,640	1,404

TABLE III.—*Annual Table of Admissions, Dismissions, and Deaths, distinguishing the Sexes.*

	Surgical Patients.						Medical Patients.					
	Admitted.		Discharged.		Died.		Admitted.		Discharged.		Died.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
1854.....	1,619	853	1,491	809	118	39	1,221	943	1,007	802	221	148
'55.....	1,542	913	1,430	860	99	57	1,004	847	841	767	164	84
'56.....	1,591	998	1,525	952	93	40	1,149	877	953	787	184	87
'57.....	1,552	1,048	1,458	1,003	65	35	1,222	952	1,050	840	166	112
'58.....	1,583	1,023	1,482	997	110	32	1,204	902	1,041	778	168	120
'59.....	1,637	1,062	1,560	1,014	80	48	1,114	855	923	757	187	101
'60.....	1,585	1,053	1,475	1,012	106	42	1,101	910	914	814	178	94
Total	11,109	6,950	10,421	6,647	671	293	8,015	6,286	6,729	5,545	1,268	746

TABLE IV.—*Annual Rate of Mortality, distinguishing the Sexes and the Two Main Classes of Disease.*

Years.	Total, over all the Cases.	Medical Cases, Mortality per Cent.			Surgical Cases, Mortality per Cent.		
		Male.	Female.	Both.	Male.	Female.	Both.
1854	11·3	17·9	15·5	16·9	7·3	4·6	7·8
'55	9·3	16·3	9·8	13·3	6·5	6·2	6·3
'56	8·7	16·1	9·9	13·4	5·7	4·	5·
'57	8·	13·6	11·7	12·8	4·3	3·3	3·9
'58	9·9	13·8	13·3	13·6	6·9	3·1	5·4
'59	8·9	16·8	11·7	14·6	4·9	4·5	4·7
'60	9·	16·2	10·4	13·6	6·7	4·	5·6
Total	9·2	15·8	11·8	14·	6·	4·2	5·6

TABLE V.—*Table of the Hours at which Death occurred.*

Years.	Deaths.	Hours, A.M.											
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1855	202	27	17	16	17	18	16	16	18	13	22	12	10
'56	188	14	19	10	17	19	18	12	14	24	20	15	6
'57	185	17	18	12	21	23	11	12	10	20	17	15	9
'58	217	17	22	22	20	20	22	16	12	22	18	22	4
'59	207	14	23	21	27	14	19	13	19	17	11	17	12
'60	206	18	15	15	15	23	21	14	18	25	13	12	17
Total	1,205	107	114	96	117	117	107	83	91	121	101	93	58

Years.	Deaths.	Hours, P.M.											
		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1855	202	13	20	19	17	22	19	20	14	13	9	20	16
'56	216	19	30	27	15	21	16	15	20	11	16	20	6
'57	193	20	22	17	17	12	19	17	16	16	12	19	6
'58	223	16	19	32	21	17	27	11	14	20	12	16	8
'59	209	27	16	18	17	13	22	20	15	12	20	18	11
'60	204	16	19	14	22	12	26	21	15	23	21	15	10
Total	1,247	111	126	127	109	97	129	104	94	95	90	108	57

Note.—Table must be read from half hours to half hours, thus, 1 o'clock = 12·30 to 1·30 and so on.

TABLE VI.—*Summary of the Cases arranged according to Classes of Disease and the Results of Treatment.*

Diseases of	Total Cases.	Cured	Relieved.	Un-relieved.	Died.	Mortality, pr. Cent.
1. Nervous system	2,520	869	1,028	441	182	7·2
2. Respiratory organs	3,202	875	1,239	275	813	25·3
3. Organs of circulation	1,343	416	459	157	311	23·1
4. Digestive organs	2,222	1,058	518	215	431	19·3
5. Genito-urinary organs	3,025	1,532	903	363	227	7·5
6. Venereal diseases	3,608	2,862	610	121	15	·4
7. Dropsies	949	279	371	108	191	20·1
8. Diseases and injuries of bones	2,904	2,092	440	157	215	7·4
9. " " joints	3,055	1,853	868	231	103	3·3
10. External injuries of soft parts	1,736	1,321	167	40	208	11·9
11. Abscesses, tumours, ulcers ...	3,037	2,067	578	261	131	4·3
12. Diseases of the eye	1,853	1,283	375	194	1	—
13. " skin	872	598	198	50	26	2·9
14. Fevers	1,118	959	50	18	91	8·1
15. Miscellaneous affections	876	527	234	82	33	3·7
Total	32,320	18,591	8,038	2,713	2,978	9·2

TABLE VII.—*Table of the Ages of the Patients, arranged according to the Classification of Disease.*

Diseases of	I. DISCHARGED.												
	Total.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 upds.
1. Nervous system	2,338	46	145	257	286	294	280	448	325	191	55	8	3
2. Respiratory organs ...	2,389	27	65	100	278	368	366	525	394	179	75	9	3
3. Organs of circulation	1,032	51	23	79	183	141	116	158	148	90	38	5	—
4. Digestive organs	1,791	63	66	68	137	205	240	409	306	204	83	9	1
5. Genito-urinary organs	2,798	86	104	78	282	375	425	652	424	237	107	24	4
6. Venereal diseases	3,593	10	13	42	1,470	1,111	450	311	124	42	17	2	1
7. Dropsies	758	15	28	40	51	63	115	175	152	91	25	3	—
8. Diseases and injuries } of bones	2,689	140	226	237	273	216	286	527	392	236	119	31	6
9. Diseases and injuries } of joints	2,952	99	222	238	485	474	364	479	317	197	66	10	1
10. External injuries of } soft parts	1,528	151	139	167	171	157	177	226	184	86	56	14	—
11. Abscesses, ulcers, } and tumours	2,906	70	108	149	356	457	374	559	433	260	100	36	4
12. Eye diseases	1,852	70	142	236	318	256	177	230	164	149	88	22	—
13. Skin „	846	55	44	58	117	111	93	136	119	72	34	6	1
14. Fevers	1,027	22	75	145	235	193	133	118	68	28	9	1	—
15. Miscellaneous diseases	843	45	66	82	104	122	110	132	105	52	18	7	—
Total	29,342	950	1,466	1,976	4,746	4,543	3,706	5,085	3,655	2,114	890	187	24

Diseases of	II. DIED.												
	Total.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	80 upds.
1. Nervous system	182	12	11	9	15	13	31	36	33	15	5	2	—
2. Respiratory organs ...	813	24	10	14	73	106	102	202	166	91	23	2	—
3. Organs of circulation	311	2	5	17	23	29	28	64	64	57	18	3	1
4. Digestive organs	431	12	6	9	24	38	46	88	80	71	44	9	4
5. Genito-urinary organs	227	8	6	4	9	21	27	49	46	34	16	6	1
6. Venereal diseases	15	—	—	—	3	2	5	3	1	—	—	—	—
7. Dropsies	191	4	7	6	13	15	15	41	49	25	14	2	—
8. Diseases and injuries } of bones	215	8	10	12	21	16	19	47	38	25	11	7	1
9. Diseases and injuries } of joints	103	1	4	6	16	13	17	17	9	11	6	2	1
10. External injuries of } soft parts	208	96	30	14	9	5	5	15	13	3	10	4	4
11. Abscesses, ulcers, } and tumours	131	7	3	5	12	7	15	24	22	13	12	1	—
12. Eye diseases	1	—	—	—	—	—	—	—	—	—	—	1	—
13. Skin „	26	3	1	—	1	2	—	9	4	3	3	—	—
14. Fevers	91	7	5	1	25	15	22	8	5	2	—	1	—
15. Miscellaneous diseases	33	1	4	—	3	2	3	7	2	5	3	3	—
Total	2,978	185	102	97	247	284	335	610	532	366	165	43	12

TABLE VIII.—*Countries in which Patients were Born.*

	No.		No.
England	29,212	Italy	29
Ireland	2,436	Spain	3
Scotland	234	Portugal	2
Wales	144	Turkey	1
Channel Islands	17	Greece	1
Malta	2	India	7
Sweden and Norway	10	Ceylon	3
Denmark	3	China	1
Russia	2	Africa	1
France	37	America	39
Belgium	5	West Indies	21
Holland	14	Australia	2
Germany	74	New Zealand	1
Poland	4	Born at sea	7
Hungary	2		
Switzerland	6		
			<u>32,320</u>

TABLE IX.—*Localities from which Patients have been brought.*

	Total.	Country.	Middlesex.	Surrey.
Medical cases	2,000	274	548	1,178
Surgical cases	3,000	510	576	1,914
	5,000	784	1,124	3,092

TABLE X.—*Summary of Surgical Operations Performed during the Period.*

Nature of Operation.	Total Cases.	Cured or Relieved.		Unrelieved.		Died.	
		Male.	Female.	Male.	Female.	Male.	Female.
Amputation of thigh	106	50	23	—	1	30	2
„ leg and foot	58	28	8	—	—	19	3
„ shoulder and arm	28	16	1	—	—	11	—
„ forearm and hand	32	25	5	—	—	2	—
Minor amputations	158	117	34	—	—	6	1
Excision of tumours of the female breast	146	—	136	—	—	—	10
Of other parts	300	131	155	6	1	3	4
Excision of diseased bones and joints	265	185	59	7	4	9	1
Ligature and compression of large arteries	35	20	3	8	—	4	—
Lithotomy	93	76	1	—	—	16	—
Lithotrity	15	7	1	2	—	5	—
Operations for hernia	287	110	101	1	4	31	40
Reduction of dislocations	82	64	8	6	2	2	—
Reparatory operations	104	47	41	7	9	—	—
Tenotomy	55	32	19	2	1	—	1
Tracheotomy	46	10	6	1	—	17	12
Operations on the eye	309	162	129	12	4	1	1
Miscellaneous operations	294	193	60	6	1	27	7
Total	2,413	1,273	790	58	27	183	82

TABLE XI.—*The following Table gives the Causes of the Accidents, with the Sexes and Mortality.*

Causes of Accidents.	Total Cases.	Cured or Relieved.		Died.	
		Male.	Female.	Male.	Female.
1. Accidents on the river, in barges, and shipboard.....	90	78	3	9	—
2. Assaults	173	102	56	14	1
3. Accidental poisoning	37	15	14	5	3
4. Attempts at suicide	87	36	35	11	5
5. Burns from clothes taking fire	213	34	60	37	82
6. „ heated fluids	177	90	46	26	15
7. „ explosion of gas.....	12	11	1	—	—
8. „ gunpowder	23	16	2	3	2
9. Collisions between opposing forces	108	90	14	4	—
10. „ with street vehicles	416	299	55	54	8
11. Cuts and blows from sharp instruments	175	138	28	8	1
12. Falls down stairs	155	69	78	4	4
13. „ from a height, scaffolding, &c.	832	679	83	62	8
14. „ from curb stones and on the ground.....	553	417	116	18	2
15. Fall of heavy weights on patients	427	364	17	45	1
16. Gunshot wounds	16	14	—	2	—
17. Machinery accidents	233	216	2	15	—
18. Railway „	84	51	4	28	1
19. Sudden torsions of the body.....	64	60	4	—	—
20. Foreign bodies lodged in natural passages	22	15	3	1	3
21. Bites of animals, 7 dogs, 2 adders, monkey, horse, rat, elephant, and a woman.....	14	13	1	—	—
22. Causes of accident not ascertained	9	3	5	—	1
Total	3,920	2,810	627	346	137

Out-Patient Department.

	Total Cases.	Men.	Women.	Children.
Surgical patients	23,483	8,768	10,636	4,079
Medical cases	23,415	8,696	10,554	4,165
Eye „	10,703	3,942	4,576	2,185
Diseases of women	11,350	—	11,350	—
Total	68,951	21,406	37,116	10,429

The numbers of persons prescribed for without being supplied with the ordinary letters for attendance as out-patients, 160,524.

The number of minor accident and operation cases treated in the hospital surgery, 13,387.

The following table gives a summary of the cases attended in connection with the Maternity Department during the last seven years.

Number of women confined, 11,928.

Number of single births, 11,800; twin births, 128; total children, 12,056; of the 12,056 children, 6,069 were living males, and 5,446 were living females; and 326 males and 215 females were still-born.

Of the total number 11,668 presented naturally, while 388 were abnormal presentations. Of the latter, 162 were breech, 101 were footling, 51 were arm, 34 were face, 6 were transverse, and 12 were placental presentations.

Of the 11,928 mothers confined, there were in their—

	No.		No.		No.
1st confinement ...	1,762	9th confinement ...	443	17th confinement...	4
2nd " 	1,910	10th " 	280	18th " 	4
3rd " 	1,806	11th " 	186	19th " 	2
4th " 	1,508	12th " 	107	20th " 	1
5th " 	1,308	13th " 	48	21st " 	—
6th " 	1,055	14th " 	30	22nd " 	1
7th " 	850	15th " 	14		
8th " 	597	16th " 	12		
					<u>11,928</u>

Among the mothers there were 36 deaths from the following causes:—14 from peritonitis, 7 from uterine hæmorrhage, 3 from rupture of womb, 1 metritis, 1 phthisis, 1 cholera, 2 pneumonia, 1 fever, 2 Bright's disease, 2 pyæmia, and 2 puerperal convulsions.

Retrospective Summary of the Patients Treated for the last Seven Years, with the Totals of each Year.

	Total.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Residents in hospital....	35,634	5,089	4,760	5,073	5,226	5,209	5,149	5,128
Dispensary patients	68,951	8,350	8,604	10,325	9,889	11,137	10,526	10,120
Casual cases	160,524	17,638	21,285	21,036	25,886	22,057	24,764	27,858
Minor accidents	13,387	2,334	2,268	2,262	1,549	1,570	1,735	1,669
Women confined	11,928	1,738	1,753	2,011	1,731	1,651	1,640	1,404
Total	290,424	35,149	38,670	40,707	44,281	41,624	43,814	46,179

*Number of Patients Annually Discharged and Dead in Guy's Hospital
since the commencement of the Institution in 1725.*

Year.	Total.	Dis- charged	Died.	Mor- tality per Cent	Year.	Total.	Dis- charged.	Died.	Mor- tality pr. Cent.
1725*	—	—	83	—	1772	2,230	1,997	233	—
'26	—	—	139	—	'73	2,156	1,923	233	—
'27	1,080	923	157	—	'74	2,194	2,010	184	—
'28	1,480	1,276	204	—	'75	2,247	2,013	234	—
'29	1,846	1,572	274	—	'76	2,239	2,030	209	—
1730	1,728	1,514	214	13·8	'77	2,350	2,128	222	—
'31	1,716	1,506	210	—	'78	2,412	2,187	225	—
'32	1,737	1,468	269	—	'79	2,064	1,814	250	—
'33	1,939	1,683	256	—	1780	2,405	2,129	276	10·3
'34	1,781	1,524	257	—	'81	2,320	2,077	243	—
'35	1,889	1,631	258	—	'82	2,226	1,994	232	—
'36	2,007	1,743	264	—	'83	2,141	1,901	240	—
'37	1,760	1,502	258	—	'84	2,158	1,938	220	—
'38	1,798	1,548	250	—	'85	2,539	2,335	204	—
'39	1,745	1,468	277	—	'86	2,152	1,919	233	—
1740	1,895	1,587	308	14·2	'87	1,965	1,717	248	—
'41	2,203	1,881	322	—	'88	2,090	1,854	236	—
'42	2,194	1,839	355	—	'89	2,469	2,256	213	—
'43	2,114	1,808	306	—	1790	2,243	2,021	222	10·2
'44	2,002	1,714	288	—	'91	2,037	1,815	222	—
'45	1,892	1,603	289	—	'92	2,166	1,891	275	—
'46	1,923	1,633	290	—	'93	2,345	2,047	298	—
'47	2,135	1,820	315	—	'94	2,184	1,915	269	—
'48	2,081	1,802	279	—	'95	2,376	2,114	262	—
'49	2,057	1,766	291	—	'96	2,466	2,209	257	—
1750	1,980	1,685	295	14·7	'97	2,571	2,321	253	—
'51	1,890	1,639	251	—	'98	2,702	2,398	304	—
'52	1,847	1,607	240	—	'99	2,642	2,328	314	—
'53	1,948	1,693	255	—	1800	2,770	2,410	360	11·6
'54	1,951	1,693	258	—	'01	2,653	2,369	284	—
'55	1,873	1,607	266	—	'02	2,774	2,433	341	—
'56	1,936	1,706	230	—	'03	2,680	2,371	309	—
'57	1,823	1,603	220	—	'04	2,482	2,157	325	—
'58	1,749	1,588	161	—	'05	2,666	2,372	294	—
'59	1,841	1,637	204	—	'06	2,505	2,235	270	—
1760	1,845	1,672	173	12·	'07	2,856	2,553	303	—
'61	1,875	1,669	206	—	'08	2,646	2,356	290	—
'62	1,907	1,673	234	—	'09	2,635	2,313	322	—
'63	1,911	1,698	213	—	1810	2,669	2,384	285	11·3
'64	1,667	1,469	198	—	'11	2,802	2,508	294	—
'65	1,881	1,657	224	—	'12	2,636	2,361	275	—
'66	1,900	1,692	208	—	'13	2,658	2,368	290	—
'67	1,847	1,641	206	—	'14	2,637	2,407	230	—
'68	1,858	1,648	210	—	'15	2,630	2,358	272	—
'69	1,985	1,771	214	—	'16	2,654	2,409	245	—
1770	2,076	1,853	223	11·3	'17	2,733	2,489	244	—
'71	2,155	1,908	247	—	'18	2,555	2,303	252	—
					'19	2,685	2,430	255	—

* From the decayed condition of the first registration book, it has been found impossible to calculate the numbers during the first two years of the series.

Number of Patients Annually Discharged, &c.—Contd.

Year.	Total.	Dis- charged.	Died.	Mor- tality per Cent.	Year.	Total.	Dis- charged.	Died.	Mor- tality pr. Cent.
1820	2,639	2,384	255	9·7	1840	3,646	3,329	317	9·6
'21	2,772	2,523	249	—	'41	3,402	3,067	335	—
'22	2,843	2,585	258	—	'42	3,694	3,353	341	—
'23	2,734	2,474	260	—	'43	3,757	3,427	330	—
'24	2,508	2,261	247	—	'44	3,911	3,519	392	—
'25	2,544	2,280	264	—	'45	3,807	3,413	394	—
'26	2,668	2,371	297	—	'46 ...	3,789	3,380	409	—
'27	2,774	2,492	282	—	'47	4,049	3,660	389	—
'28	2,516	2,270	246	—	'48	3,772	3,397	375	—
'29	2,585	2,288	297	—	'49 ...	3,824	3,449	375	—
1830	2,603	2,297	306	10·1	1850	4,221	3,872	349	9·9
'31	3,279	2,934	345	—	'51	4,526	4,109	417	—
'32	3,013	2,756	287	—	'52	3,876	3,580	342	—
'33	3,095	2,825	270	—	'53	3,265	2,961	304	—
'34	3,395	3,095	300	—	'54	4,635	4,109	526	—
'35	3,306	2,985	321	—	'55	4,302	3,898	404	—
'36	3,470	3,161	309	—	'56 ...	4,621	4,217	404	—
'37	3,443	3,057	386	—	'57 ...	4,729	4,351	378	—
'38	3,375	3,066	309	—	'58	4,728	4,298	430	—
'39	3,019	2,688	331	—	'59 ...	4,670	4,254	416	—
					1860	4,635	4,215	420	9·1